

REMARKS

This application has been carefully reviewed in light of the Office Action dated November 20, 2006. Claims 1 to 10, and 12 are in the application, with Claim 11 having been cancelled herein. Claims 1, 5, 9, 10, and 12 are independent. Reconsideration and further examination are respectfully requested.

Claims 1 and 12 were objected to for informalities. Amendments to the claims are believed to obviate the objections. Accordingly, reconsideration and withdrawal of the objections are respectfully requested.

Claims 1, 2, 5, 6, 9, 10, and 12 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,525,888 (Toya). Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) over Toya in view of U.S. Patent No. 5,631,677 (Horigome) and U.S. Patent No. 6,563,766 (Nakamiya). Claims 7 and 8 were rejected under 35 U.S.C. § 103(a) over Toya in view of Horigome. Reconsideration and withdrawal of the rejections are respectfully requested.

Claims 1, 9, and 12

The invention of independent Claims 1, 9, and 12 generally concerns an electric charging apparatus for holding and charging a secondary battery. The electric charging apparatus is attachable to an electronic apparatus main body that can be driven with the secondary battery. Among many features, Claims 1, 9, and 12 includes the feature of receiving residual capacity information of the secondary battery, detected by the electronic apparatus based on electric power supplied via a terminal of the electric charging apparatus, from the electronic apparatus.

Referring specifically to claim language, independent Claim 1 defines an electric charging apparatus for holding and charging a secondary battery, the electric

charging apparatus being attachable to an electronic apparatus that can be driven with the secondary battery while the electric charging apparatus is attached to the electronic apparatus. The electric charging apparatus comprises a terminal configured to supply electric power from the secondary battery to the electronic apparatus while the electric charging apparatus is attached to the electronic apparatus, and reception means for receiving residual capacity information of the secondary battery, detected by the electronic apparatus based on the electric power supplied via the terminal, from the electronic apparatus. The apparatus also comprises display means for displaying the residual capacity information of the secondary battery, and display control means for causing the display means to display a battery residual capacity of the secondary battery based on the residual capacity information received by the reception means.

Independent Claim 9 is directed towards a method generally in accordance with the apparatus of Claim 1. Specifically, Claim 9 defines a battery residual capacity display control method in an electric charging apparatus for holding and charging a secondary battery, the electric charging apparatus being attachable to an electronic apparatus that can be driven with the secondary battery while the electric charging apparatus is attached to the electronic apparatus. The method comprises a step of supplying electric power from the secondary battery to the electronic apparatus while the electric charging apparatus is attached to the electronic apparatus, and a reception step of receiving residual capacity information of the secondary battery, detected by the electronic apparatus based on the supplied electric power, from the electronic apparatus. The method also comprises a display control step of causing a display unit to display a battery residual

capacity of the secondary battery based on the residual capacity information received in the reception step.

Independent Claim 12 is directed towards an apparatus generally in accordance with that of Claim 1, but includes additional features. Specifically, Claim 12 defines an electric charging apparatus for holding and charging a secondary battery, the electric charging apparatus being attachable to an electronic apparatus that can be driven with the secondary battery while the electric charging apparatus is attached to the electronic apparatus. The electric charging apparatus comprises a terminal configured to supply an electric power from the secondary battery to the electronic apparatus while the electric charging apparatus is attached to the electronic apparatus, and a communication unit configured to perform communication with the electronic apparatus. The apparatus also comprises a display unit configured to display the residual capacity information of the secondary battery, a display control unit configured to, when residual capacity information of the secondary battery, detected by the electronic apparatus based on the electric power supplied via the terminal, is received via the communication unit, display a battery residual capacity on the display unit based on the residual capacity information, and a control unit configured to control electric charging of the secondary battery in accordance with the residual capacity information.

The applied references are not seen to disclose or to suggest the features of independent Claims 1, 9, and 12, and in particular, are not seen to disclose or to suggest at least the feature of receiving residual capacity information of a secondary battery, detected by an electronic apparatus based on electric power supplied via a terminal of an electric charging apparatus, from the electronic apparatus.

In responding to prior arguments in support of patentability, the Office Action asserts “Toy’s [sic, Toya’s] charger is in fact an electronic charging apparatus”, and the Office Action concedes that “the microprocessor 43 [in Toya’s charger] subsequently sends the battery voltage and remaining capacity information to the portable electronic apparatus’ microprocessor 13 via the communication terminals (col. 6, lines 44-46).” (pages 8 and 9 of the Office Action)(emphasis added). Applicant agrees that Toya’s battery charger 30 sends battery information. (See, e.g., Figure 3; column 5, lines 3 to 7; column 5, lines 21 to 24; see also, Figure 5; column 6, lines 27 to 30; and column 6, lines 44 to 47 of Toya).

However, Toya is not seen to disclose or to suggest an electric charging apparatus receiving residual capacity information of a secondary battery from an electronic apparatus, much less disclose or suggest receiving residual capacity information of a secondary battery, detected by an electronic apparatus based on electric power supplied via a terminal of an electric charging apparatus, from the electronic apparatus.

Furthermore, in entering the rejections of Claims 1 to 10, and 12, the Office Action asserts Toya discloses “[r]eception means (Fig. 3 elements 12 and 35) for receiving residual (remaining) capacity information (Col. 5 lines 17-18)”. (page 3 of the Office Action). However, contrary to the Office Action’s rejection, Toya discloses that communication terminals 12 and 35 are used by the battery charger 30 to send battery information (see, Figure 3; column 5, lines 3 to 7; column 5, lines 21 to 24), as the Office Action later concedes (see, pages 8 and 9 of the Office Action). Accordingly, this should be viewed as a traversal of the rejections of Claims 1 to 10, and 12.

In this regard, Applicant notes the Office Action enters a blanket rejection of independent Claims 1, 5, 9, 10, and 12 that does not appear to be directed to the specific claim language of independent Claims 5 and 10. (See, page 3 of the Office Action). For this additional reason, the rejections of independent Claims 5 and 10 are traversed.

The remaining applied references, namely Horigome and Nakamiya, are not seen to cure the deficiencies of Toya, either alone or in any permissible combination. Accordingly, independent Claims 1, 9, and 12 are believed to be in condition for allowance, and Applicant respectfully requests the same.

Claims 5 and 10

The invention of independent Claims 5 and 10 generally concerns an electronic apparatus, to which an electric charging unit for holding and charging a secondary battery is attachable, and that can be driven with electric power from the secondary battery while the electric charging unit is attached to said electronic apparatus. Among many features, Claims 5 and 10 includes the feature of transmitting residual capacity information detected in a residual capacity detection means (Claim 5) or step (Claim 10) to an electric charging unit.

Referring specifically to claim language, independent Claim 5 defines an electronic apparatus, to which an electric charging unit for holding and charging a secondary battery is attachable, and that can be driven with electric power from the secondary battery while the electric charging unit is attached to the electronic apparatus. The electronic apparatus comprises reception means for receiving electric power supplied from the secondary battery while the electric charging unit is attached to the electronic apparatus, residual capacity detection means for detecting a residual capacity of the

secondary battery based on the electric power received by the reception means, in a state where the secondary battery is under an approximately constant load, and residual capacity transmission means for transmitting residual capacity information detected by the residual capacity detection means to the electric charging unit.

Independent Claim 10 is directed to a method generally in accordance with the apparatus of Claim 5.

The applied references are not seen to disclose or to suggest the features of Claims 5 and 10, and in particular, are not seen to disclose or to suggest at least the feature of transmitting residual capacity information detected in a residual capacity detection means or step to an electric charging unit.

As discussed above, the Office Action concedes that Toya's communication terminals 12 and 35 are used by the battery charger 30 to send battery information. More specifically, terminals 12 and 35 are used by the battery charger 30 to send battery information to Toya's portable telephone 10. However, Toya's portable telephone 10 is not seen to transmit residual capacity information detected in a residual capacity detection means or step to an electric charging unit.

The remaining applied references, namely Horigome and Nakamiya, are not seen to cure the deficiencies of Toya, either alone or in any permissible combination. Accordingly, independent Claims 5 and 10 are believed to be in condition for allowance, and Applicant respectfully requests the same.

The other claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the

invention, however, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

/Gregory S. Weaver/
Attorney for Applicant
Registration No.: 53,751

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3800
Facsimile: (212) 218-2200

CA_MAIN 127809v1